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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,613	12/17/2003	Qingfang Leng	HDI 102	3443
20027	7590	01/31/2005	EXAMINER	
STANLEY Z COLE 26620 ST FRANCIS ROAD LOS ALTOS HILLS, CA 94022			KOCH, GEORGE R	
			ART UNIT	PAPER NUMBER
			1734	
DATE MAILED: 01/31/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/736,613	<b>Applicant(s)</b> LENG ET AL.	
	<b>Examiner</b> George R. Koch III	<b>Art Unit</b> 1734	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 October 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 2,4,5,7 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,6,8 and 10-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/3/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of group I and species a and d in the reply filed on 10/24/2004 is acknowledged. The traversal is unclear, but it appears to be on the ground(s) that the groups are the same invention and mapping is required for the apparatus. This is not found persuasive because the apparatus merely requires the capability to perform mapping. However, the apparatus does not require the mapping operation, or even the substrate (i.e., the magnetic disk). As to the species, in each group, the various species CANNOT be used together (i.e., using species a precludes using species b or c), and therefore the species requirement is directed towards independent inventions. Furthermore, the method does not require the particulars of the apparatus.

The requirement is still deemed proper and is therefore made FINAL.

2. An action on claims 1, 3, 6, 8, and 10-15 follows.

### ***Drawings***

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "30" has been used to designate both a reservoir and a shaft in figure 3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The

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replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: item 407 in Figure 4 is not present in the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1, 3, and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rangarajan (US 6,376,013) in view of Mian (US 2003/0072001 A1).

Rangarajan discloses film optics, a test stand, means to rotate the substrate on the test stand, a programmable dispenser and a computer (see Figure 2) capable of performing as claimed.

Rangarajan does not disclose the claimed shutter system.

Mian discloses an automatic shutter system for use with sensing optics (paragraph 0095). Mian discloses that the shutter can protect the optics from contamination. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have utilize such a shutter in order to reduce contamination.

As to claim 3, the shutter of Mian is capable of functioning linearly.

As to claim 10, the rotator of Rangarajan is capable of being programmed to spin at the claimed rates.

As to claim 11, the sensor and optics of Rangarajan is capable of achieving the claimed accuracy.

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As to claim 12, the control of Rangarajan is capable of being programmed to perform all of the claimed measurements.

Claim 13 is rejected on similar grounds as claims 1, 10 and 11 above.

As to claims 14 and 15, the apparatus of claim 13 (and thus claims 1, 10 and 11 above) is capable of performing the claimed steps.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rangarajan and Mian as applied to claim 1 above, and further in view of Tisone (US Patent 5,916,524).

Rangarajan and Mian do not disclose using a peristaltic pump in the dispenser.

Tisone discloses that peristaltic pumps are a well known equivalent (see column 5, lines 40-42) for positive displacement pumps, such as those of Rangarajan. One in the art would appreciate that replacement of standard components with others would be desirable dependent on component prices and efficiencies. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize such peristaltic pumps as a replacement in order to achieve reduced component prices.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rangarajan and Mian as applied to claim 1 above, and further in view of Nishikawa (US Patent 6,213,478 B1).

Rangarajan and Mian do not suggest a collet for protecting the spindle.

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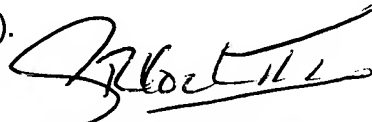
Nishikawa discloses using a collet (item 315, 415, etc) for protecting the spindle (item 305, 405, etc). Nishikawa discloses that the collet also reduces wobble in the shaft (see abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such a collet in order to reduce wobble.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R. Koch III whose telephone number is (571) 272-1230 (TDD only). If the applicant cannot make a direct TDD-to-TDD call, the applicant can communicate by calling the Federal Relay Service at 1-866-377-8642 and giving the operator the above TDD number. The examiner can normally be reached on M-Th 10-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



George R. Koch III  
Patent Examiner  
Art Unit 1734

GRK  
1/19/2005